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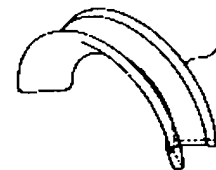
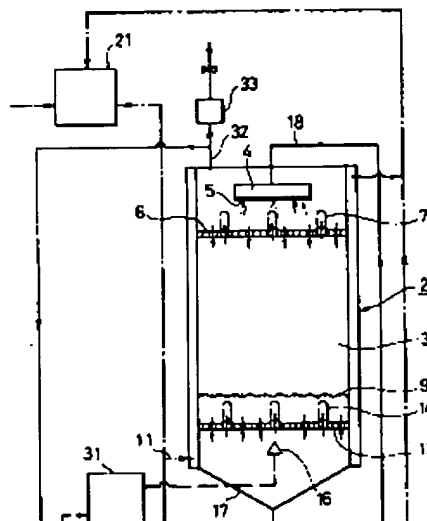
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**(54) METHOD AND APPARATUS FOR CELL CULTURE**

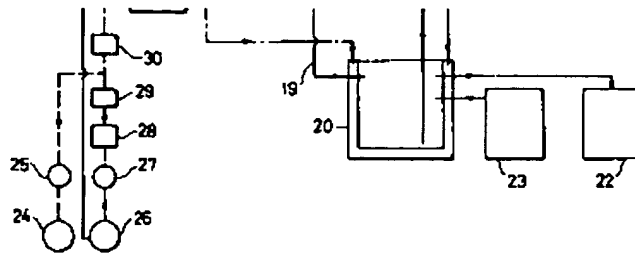
(57) Abstract:

**PURPOSE:** To culture adherent cells in high efficiency, by proliferating the cells on the substrate without immersing the substrate in culture liquid while contacting the substrate with the culture liquid.

**CONSTITUTION:** The substrate container 3 is fully packed with the



substrates 1, the culture liquid is sprayed from the sprayer 4 placed at the top of the culture tank 2 to effect the thorough contact of the liquid with the substrates 1, and the culture liquid dripped to the bottom of the container 3 is collected in the tank 20 and circulated to the sprayer 4 with a pump. The substrate container 3 is aerated with a gas having necessary composition simultaneously to the initiation of the culture. The gas is introduced into the culture tank 2 from the gas diffuser 17 attached at the top or bottom of the culture tank and made to contact countercurrently or concurrently with the culture liquid. The adherent cells can be proliferated on the substrate which is not immersed in but contacted with the culture liquid, in high efficiency.



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